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ABSTRACT

Interest in the application of modern linguistic theory in composition research has faded, possibly because some of the basic principles that inform linguistic study have been misunderstood. For example, a common misconception is that linguists use the term "generate" to mean "produce." However, the purpose of a generative grammar is to describe structures, not to produce them itself and not to explain the processes by which speakers produce structures. Also needing clarification are the ideas that (1) a generative grammar is a competence model, not a performance model; (2) a generative grammar should be restricted to a characterization of systematic phenomena; (3) a generative grammar should be explicit; and (4) a generative grammar should be revealing. The recent work of William Vande Kopple shows how composition researchers can appropriate basic linguistic principles for their own work. Using a competence model, Vande Kopple describes the reader's understanding of the system underlying information distribution in sentences. Although he shows how syntax can be manipulated to achieve an effective distribution of old and new information, his model is concerned primarily with the ordering of information rather than of sentence elements. Thus, Vande Kopple's work shows how composition researchers can employ successfully the principles that inform linguistic study. (HOD)

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Analogizing from Generative Linguistics to Composition

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(34th, Detroit, MI, March 17-19, 1983).

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During the past twenty-five years, a number of fields in the humanities and social sciences have looked to generative linguistics as a model for analyzing the phenomena within their respective domains. Some researchers have been lavish in their praise of recent linguistic study; folklorist Lauri Honko has gone so far as to state that "The only success-story in the humanities in the recent past [is] modern linguistic theory".¹

Composition teachers and theorists have not evaded the allure of generative grammar; indeed, W. Ross Winterowd notes that in the years following Noam Chomsky's 1957 publication of *Syntactic Structures*

composition teachers have been dazzled by the elegance of the notational system of the new grammar, with its branching trees, arrows, brackets, and so forth; have been numbed by the seemingly impenetrable jargon of the field . . . and, in less guarded moments, have allowed themselves to hope that from the new field would emerge the panacea for the ills of teaching composition.²

Seven years have passed since Winterowd made his comments, and in those years a growing disillusionment regarding the applications of linguistic theory to composition studies has become evident. Writing in 1982, Lester Faigley notes that

by the mid-seventies the enthusiasm for transformational grammar among interdisciplinary researchers in discourse had faded . . . researchers interested in real-world uses

of language gradually came to realize that the aims of transformational theory were not harmonious with the aims they wished to pursue.³

A quick examination of the recent issues of the major composition journals confirms Faigley's conclusion that interest in the applications of modern linguistic theory in composition research has faded, but we wish to suggest that generative grammar is not divorced from real-world uses of language and that the application of linguistic concepts in composition studies can be productive.

A necessary condition for the successful application of linguistic theory in other disciplines is an understanding of the basic principles which inform linguistic study. We believe that much of the disillusionment which composition researchers are experiencing results from a misunderstanding of these principles, so we will attempt to clarify the basic ideas of generative linguistics; in so doing, we hope to dispel some of the most common misconceptions concerning the discipline. We will also attempt to demonstrate that linguistic principles can serve as criteria for evaluating the composition studies of recent discourse theorists and provide a framework for future composition studies.

What are the basic principles of generative linguistics?

1. A generative grammar is a formal set of rules which describes the structure of a particular aspect of language.

Winterowd has noted that the jargon of linguistics seems

impenetrable, and it is true that misunderstanding begins with the very name "generative grammar." Within linguistic theory "generate" means simply "to give a formal characterization for a set of structures." Thus, a generative grammar of English is a formal set of rules which describes the structure of a particular aspect of the English language; for example, generative phonology describes the structure of the language's sound system, and generative syntax describes the structure of the sentences in the language.

A common misconception is that linguists use the term "generate" to mean "produce." For example, in the essay "How Little Sentences Grow into Big Ones," Kellogg Hunt asserts that "generative grammar . . . tries to generate the same sentences that people generate, and it tries to generate none of the nonsentences."⁴ In the course of a conversation, people will produce sentences, but they will not consciously state formal rules which describe the sentences they have produced. On the other hand, it is possible to construct a grammar to describe the structure of sentences, but the grammar itself cannot produce any sentences. Misconceptions concerning the meaning of "generate" are easily understandable when we consider that in general usage the word "generate" does mean "produce," but it is important to realize that a generative grammar does not itself "produce" anything, nor does it describe the processes by which speakers produce sounds or sentences; as Andrew Radford notes,

To interpret generative rules as wellformedness/
admissability conditions . . . is to disclaim any
implications about the processes and mechanisms by

which sentence structures might be formed . . . Perhaps a simple analogy might help to clarify the point. Municipal regulations specify certain conditions that houses must meet: viz. they must be built out of certain materials, not others; they must contain so many windows of such-and-such a size, and so many doors; they must have a roof which conforms to certain standards . . . and so on and so forth. Such regulations are in effect wellformedness conditions on houses and [as such constitute a type of generative grammar]. What they do not do is tell you how to go about building a house; for that you need a completely different set of instructions, such as might be found e.g., in Teach Yourself Housebuilding.⁵

The purpose of a generative grammar, then, is to describe structures, not to produce them itself and not to explain the processes by which speakers produce structures.

2. A generative grammar is a competence model, not a performance model.

Whatever the domain that linguists are describing, they always begin with the assumption that knowledge of the wellformedness conditions of the domain is systematic and can be modeled. Because it is implicit knowledge which is being described, linguists impose the criterion that a generative grammar should be a competence model, not a performance model. The terms "competence" and "performance" are often misconstrued, but Chomsky provides concise definitions when he states that

We . . . make a fundamental distinction between competence (the speaker-hearer's knowledge of his language) and performance (the actual use of language in concrete situations). . . linguistic theory is mentalistic, since it is concerned with discovering a mental reality [i.e., competence] underlying actual behavior [i.e., performance].⁶

For Chomsky, therefore, competence is psychological; it is knowledge. Because a generative grammar is a competence model,

it should not produce specific cases of language use but should rather generate (describe) a user's knowledge of the structures which underlie his language.

The fact that a generative grammar models knowledge of a language rather than the processes by which a speaker-hearer uses that knowledge has led composition researchers to charge that generative linguistics bears no relation to actual language use; Paigley and others attribute the decline in the popularity of linguistics among composition researchers to a competence grammar's lack of relevance for those interested in "real-world uses of language."

This assumption results from a misunderstanding of the reason for a distinction between competence and performance; the idealization of a competence grammar is intended to prevent the grammar from describing structures that result from performance errors. Consider the case of a student who carelessly writes

I saw the
the movie.

If the student is a native speaker of English, then it is certain that he or she knows that the double-article construction is not a grammatical English structure. As John Lyons notes, it therefore follows that a linguist "must idealize the 'raw data' to some degree and eliminate from the corpus all those utterances that the native speaker would recognize, by virtue of his 'competence,' as ungrammatical."⁷ The criterion that a generative grammar be a competence model is necessary to avoid having to account for all the external variables that

impinge on a person producing a particular utterance. Such idealization does not divorce generative grammar from actual language use; it only preserves a grammar from describing unintentional language misuse.

3. A generative grammar should be restricted to a characterization of systematic phenomena.

The third principle is necessary because a generative analysis is a model, and only predictable, rule-governed phenomena can be modeled. This principle is often violated in composition studies; one example of such a violation is Edward P.J. Corbett's definition of a sentence as "a group of words beginning with a capital letter and ending with some mark of terminal punctuation."⁸ Notice that Corbett does not define any domain with constant internal structure; his definition does not reflect our knowledge of the elements which constitute a sentence and the systematic manner in which these elements are ordered. Corbett's definition could include everything from a single word to an entire discourse so long as they are bounded by a capital letter and a period with no terminal punctuation in between.

An alternative is to define a sentence as the maximal syntactic unit containing a single main verb, as exemplified by the brackets in

S2 S1
[The fact [that the Orioles beat the Tigers] annoyed Fred]

Not only does this definition describe a domain with constant internal structure, it also reflects the native speaker's knowledge of the ordering characteristics of the elements

which constitute a sentence; for example, both of the structures which qualify as sentences under this definition contain a subject and a verb, and both can be made passive.

4. A generative grammar should be explicit.

Besides being restricted to a characterization of systematic phenomena, a generative model should be explicit; that is, the elements should be well-defined and a grammar should be formalized. This criterion is necessary in order to make empirical (testable) claims about the structure of language; vague claims are impossible to test for validity. Inexplicit claims are common in composition studies; for example, when Francis Christensen asserts that "We need a rhetoric . . . that will generate ideas,"⁹ it is unclear what he means by generate and what the properties of a generative rhetoric might be. Even after examining Christensen's sentence model, it is still unclear how it would generate "ideas."

5. A generative grammar should be revealing.

The reason for this final principle should be obvious; revelation is the reason for constructing a model at all; any analysis that is unrevealing is by definition useless.

The principles which we have presented serve as guidelines in constructing any generative grammar; the accomplishments of modern linguistics are largely a function of linguists' success in modeling language according to these principles. The examples we have included suggest that some composition researchers have misunderstood these basic ideas which inform linguistic study,

and few have attempted to use these principles in constructing discourse models. We now turn our attention to the question of whether it is in fact possible for composition researchers to borrow from generative linguistics.

A common charge made by composition theorists is that the sentence is the largest domain which a transformational grammar can describe; one reason which Faigley notes for composition researchers' dwindling interest in applying linguistic theory is that transformational grammar possesses the "insoluble limitation" of being

restricted to units no larger than the sentence. Transformational theory . . . upheld with an elaborate formalism Bloomfield's contention that linguistics could not go beyond sentence-level structures.¹⁰

We'll examine this contention in some detail in a moment, but first we should note that most applications of linguistic theory in composition studies have in fact occurred at the sentence level. Faigley cites the sentence-combining exercises of John Mellon¹¹ and Frank O'Hare¹² as transformational grammar's chief legacy in the composition field; we would include also Richard Ohmann's¹³ investigation of how transformational grammar can be used to explain style, but this work also is limited to sentence-level phenomena.

Is it true, however, that a generative grammar cannot describe a domain larger than the sentence? Those who make this contention are confusing a problem of application with a problem of theory. In fact, generative linguists view discourse in the same manner that they view phonology or syntax: as a rule-governed system of knowledge. Because it is possible

in theory to write a grammar to describe any rule-governed system, it should be possible to write a grammar which describes composition or at least the well-defined sub-domains of discourse. The problem is in identifying the basic elements (primes) and formalizing the notational system used to express the grammatical rules.

An analogy may help here. Linguists knew that the sound system of a language is systematic; they are able to identify the significant sound units and to develop a rule system for describing sound patterns. If linguists wish to describe the same language at the sentence level, however, they will need to identify different primes and to use a different rule system, since an analysis of syntax in terms of phonemes would be, to say the least, unrevealing. Therefore, each of these domains requires a unique model; generative phonology and transformational syntax are the areas of generative linguistics which seek to provide the respective models.

An analogous relationship holds between sentences and a composition. Just as a syntactic model makes only minimal use of phonological information and does not use the primes and rule system of a phonological model, so a grammar of composition may make only minimal use of syntactic information and use primes and a rule system different from those of a syntactic model. What all three models have in common, however, is that all are constructed according to the principles we have presented in this paper, since generative linguists assume that the same principles of construction are applicable in modeling any systematic domain.

Theorists have been attempting to model discourse since Aristotle identified the Statement and the Argument as the only indispensable elements of a speech, but it is not always clear what criteria researchers have used in constructing their models. Although the past contributions of generative linguistics to composition studies have been limited primarily to the sentence level, we suggest that the greater contribution which linguistics can offer future researchers is the basic principles we have presented. Rather than attempting to borrow the sentence models which linguists have constructed, composition researchers would do well to conceive of discourse as a rule-governed system of knowledge and then attempt to construct an explicit and revealing model which is appropriate for their own field.

Since most applications of generative linguistic theory in composition studies have occurred at the sentence level, it is difficult to point to a composition model constructed according to the principles we have presented; however, we do think that the recent work of William Vande Kopple¹⁴ shows how composition researchers can appropriate basic linguistic principles and use them in their own work.

Working in a tradition that has existed in linguistic study since the 1920's, Vande Kopple begins by dividing a sentence into two parts:

--Topic (old information). The information which is already shared by the writer and the reader.

--Comment (new information). The information which is previously unknown by the reader.

Vande Kopple provides the following example:

consider the following pair of sentences, in which pair sentence a provides some context for sentence b:

- a: Professor Acme is an excellent teacher.
- b: He happens to enjoy jogging.

In sentence b, He is the topic, and happens to enjoy jogging is the comment.¹⁵

Research by psycholinguists Herbert H. Clark and Susan E. Haviland¹⁶ has shown that the mind comprehends information most effectively when old information precedes new information in a sentence. Vande Koppe extends this research to show how information distribution in sentences which are contained in larger units of discourse can affect comprehension. He identifies two basic paragraph patterns:

- The constant-topic pattern (A-B. A-C. A-D.)
The same topic serves as old information for each sentence in a paragraph.

For example:

Madness need not be all breakdown. It may also be breakthrough. It is potential liberation and renewal as well as enslavement and existential death.¹⁷

- The linear progression pattern (A-B. B-C. C-D.)
The new information of a sentence becomes the old information of the following sentence.

For example:

Nevertheless, many executives are resisting the computer. This is a holdover from the industrial era, where executives considered it beneath themselves to type. That attitude will have to change if an executive expects to survive in an information society where computers and keyboards are the tools of the trade.¹⁸

Vande Koppe has conducted tests which show that paragraphs whose sentences conform to these distributions of old and

new information are easier to read and remember than paragraphs whose sentences do not; he concludes that his theory "accurately describes how information should be distributed in connected English sentences in order to assure most efficient and accurate reading and retention."¹⁹

This summary of Vande Kopple's research is necessarily brief, but a closer examination of his work in light of the principles we have presented will reveal several striking facts:

1. Vande Kopple's model is a competence grammar. It describes the knowledge which a reader possesses of the system that underlies the distribution of information in the sentences of a paragraph. The model does not itself produce paragraphs, nor does it describe the processes by which writers produce them; instead, it specifies what readers implicitly know about the wellformedness conditions for paragraphs.

2. Vande Kopple's model is explicit, and it is limited to a characterization of systematic phenomena. He provides clear definitions of his primes (old and new information) and shows how these primes are distributed in the sentences of a paragraph.

3. Vande Kopple limits his model to a specific domain. Although he shows how syntax can be manipulated to achieve an effective distribution of old and new information, his model is not primarily concerned with the ordering of the elements which constitute a sentence; it is concerned with the ordering of the information expressed by those elements.

4. Vande Kopple's claims are testable, and he makes an effort to test them; he constructs eight tests to measure readability and memorability.

5. Vande Kopple's model is revealing; it makes explicit

the effect that discourse has on the ordering of information within a sentence.

There is more that we could say about the strengths and weaknesses of Vande Kopple's work, but we believe that this analysis is sufficient to demonstrate that it is indeed possible for composition researchers to employ productively the principles which inform linguistic study. In conclusion, we suggest that it is the application of these principles that offers the greatest promise for those composition researchers who are interested in borrowing from generative linguistics.

Notes

¹ Lauri Honko, "Methods in Folk-Narrative Research," Ethnologia Europaea, 11 (1979-80), p. 6.

² W. Ross Winterowd, "Linguistics and Composition," in Teaching Composition: 10 Bibliographical Essays, ed. Gary Tate (Fort Worth: TCU Press, 1976), p. 197.

³ Lester Faigley, rev. of Linguistics, Stylistics, and the Teaching of Composition, ed. Donald McQuade, College Composition and Communication, 33 (1982), p. 96.

⁴ Kellogg Hunt, "How Little Sentences Grow into Big Ones," in Readings in Applied Transformational Grammar, ed. Mark Lester (New York: Holt, Rinehart, and Winston, 1973), p. 163.

⁵ Andrew Radford, Transformational Syntax (Cambridge, England: Cambridge Univ. Press, 1981), pp. 90-91.

⁶ Noam Chomsky, Aspects of the Theory of Syntax (Cambridge, MA: MIT Press, 1965), p. 4.

⁷ John Lyons, Noam Chomsky (New York: Penguin Books, 1977), p. 32.

⁸ Edward P.J. Corbett, "A Method of Analyzing Prose Style with a Demonstration Analysis of Swift's 'A Modest Proposal'," in The Writing Teacher's Sourcebook, ed. Gary Tate and Edward P.J. Corbett (New York: Oxford Univ. Press, 1981), p. 349.

⁹ Francis Christensen, "A Generative Rhetoric of the Sentence," in Rhetoric and Composition, ed. R.L. Graves (Rochelle Park, NJ: Hayden, 1976), p. 130.

- 10 Faigley, p. 96.
- 11 John C. Mellon, Transformational Sentence-Combining: A Method for Enhancing the Development of Syntactic Fluency in English Composition (NCTE Research Report #10, 1969).
- 12 Frank O'Hare, Sentence Combining: Improving Student Writing without Formal Grammar Instruction (NCTE Research Report #15, 1973).
- 13 Richard Ohmann, "Literature as Sentences," in Readings in Applied Transformational Grammar, ed. Mark Lester (New York: Holt, Rinehart, and Winston, 1973), pp. 129-140.
- 14 William J. Vande Kopple, "Functional Sentence Perspective," College Composition and Communication, 33 (1982), pp. 50-63.
- 15 Vande Kopple, p. 51.
- 16 Herbert H. Clark and Susan E. Haviland, "Comprehension and the Given-New Contract," in Discourse Production and Comprehension, ed. Roy O. Freedle (Norwood, NJ: Ablex Publishing Company, 1977), pp. 1-40.
- 17 R.D. Laing, The Politics of Experience (New York: Ballantine, 1967), p. 133.
- 18 John Naisbitt, Megatrends (New York: Warner Books, 1982), p. 35.
- 19 Vande Kopple, p. 55.